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The Effect of Entrepreneurial Skills and Self-Efficacy on Entrepreneurial Interest among Children

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Abstract
This study aims to determine the influence of entrepreneurial skills and self-efficacy on entrepreneurial interest in children. This research utilizes a quantitative approach with a meta-analysis. The inclusion criteria for this study include research published in national and international journals indexed by Sinta or Scopus; studies must be relevant, employ experimental or quasi-experimental methods, be published between 2020 and 2025, and provide complete data to calculate the effect size. Data collection is conducted through databases such as Google Scholar, Mendeley, Scopus, ERIC, and Wiley. Keywords: entrepreneurship skill; self-efficacy; the influence of entrepreneurial skills on entrepreneurial interest in children; the effect of self-efficacy on entrepreneurial interest in children. Data analysis is performed using the JASP application. The study concludes that there is a positive influence of entrepreneurial skills and self-efficacy on entrepreneurial interest in children, with a high value ($r = 0.927$; $t = 8.718$; $p < 0.001$) in the large effect size category. These findings provide important information for teachers to enhance children's entrepreneurial skills in schools.

Keywords: *Entrepreneurial Skills, self-efficacy, Entrepreneurial Interest*

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Introduction

In the modern era marked by technological advancements, globalization, and dynamic job market changes, entrepreneurship plays a central role in driving economic growth, job creation, and social and technological innovation (Brändle et al., 2018; Saoula et al., 2023). Entrepreneurship is no longer only seen as an alternative career option, but rather as a key pillar in sustainable development. Entrepreneurs act as agents of change who are able to identify opportunities, create new products or services, and provide solutions to societal problems (Ami et al., 2025). Therefore, character development and entrepreneurial skills are becoming increasingly relevant, not only for adults but also begin to be introduced from an early age (Sugianingrat et al., 2020; Santosa et al., 2025).

The importance of entrepreneurship in the modern era is also reflected in the need for human resources who not only have academic knowledge, but also have the ability to think creatively, innovate, and adapt to change(Sindala & Asnah, 2022; Munawar & Suryana, 2020). The education system is also required to not only prepare graduates who are ready to work, but also able to create jobs. Thus, instilling entrepreneurial values and skills from an early age is an important investment in building a future generation that is independent, productive, and globally competitive. Entrepreneurship is a strategic means to form individuals who are

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not only looking for opportunities, but also able to create positive changes in their social and economic environment (Pertiwi & Khafid, 2021). Entrepreneurship has a strategic role in shaping individual economic independence, including when it is instilled from an early age. Children who are introduced to the concept of entrepreneurship are indirectly trained to think creatively, take initiative, and understand the value of money and economic processes simply (Renaningtyas et al., 2021; Setiawan et al., 2020). Through entrepreneurial activities such as small business simulations, exhibitions of works, or self-directed projects, children learn to design ideas, make decisions, solve problems, and manage resources. This contributes to the formation of a resilient, independent, and responsible attitude in facing life's challenges, including in financial aspects (Ali et al., 2024; Luciana et al., 2024; Siregar & Marwan, 2020).

Instilling an entrepreneurial spirit from an early age also helps children understand the importance of effort and hard work in achieving economic goals. Economic independence grown from a young age encourages children not to depend completely on other parties, but to have the motivation to create their own opportunities(Rodrigues et al., 2025). In the long term, children who are used to thinking and acting in an entrepreneurial manner tend to have higher resilience, orientation to the future, and readiness to adapt in the midst of global economic dynamics. Therefore, entrepreneurship education for children is an important first step in building a generation that is not only academically intelligent, but also economically and socially competent (Markman et al., 2005; Kickul et al., 2008). In recent decades, there has been a significant increase in the adoption of Entrepreneurship education programs aimed specifically at children. This phenomenon is triggered by the global awareness of the importance of equipping young people with 21st-century skills, such as critical thinking, creativity, risk-taking skills, and problem-solving (Zulyusri et al., 2023; Dewanto et al., 2023; (Hariyadi et al., 2023). Entrepreneurship programs for children are not only present in formal forms in educational institutions, but also in non-formal forms such as training, workshops, and children's entrepreneurship camps organized by private institutions and communities. These initiatives are designed to build a foundation of entrepreneurial thinking early on, which is expected to form an independent, innovative, and productive mindset in the long run (Brändle & Kuckertz, 2023).

The increase in entrepreneurship education programs for children also reflects the response to increasingly complex socio-economic changes(Hidi et al., 2002). Today's children grow up in a highly competitive and dynamic environment, so a more holistic and transformative approach to education is needed. Governments in various countries, including Indonesia, have begun to integrate entrepreneurship content into the basic curriculum in the hope of instilling the values of productivity and the spirit of innovation from school age(Bayrón, 2013; Isabel, 2014). This shows a paradigm shift from just academic mastery to the development of entrepreneurial character and competence as a provision to face future challenges. Fostering entrepreneurial interest in children faces various challenges, both from psychological, social, and structural aspects(Puni et al., 2018). Psychologically, children are still in stages of cognitive and affective development that require a contextual and enjoyable approach to learning. In addition, the lack of understanding of parents and educators about the importance of entrepreneurship education is often an obstacle in providing optimal support. Another challenge also arises from the school environment that still focuses on conventional academic achievements, so aspects such as creativity, independence, and risk-taking have not been fully facilitated in the teaching and learning process.(Hasdiansa & Sitti Hasbiah, 2024; Burnette et al., 2020; Atitsogbe et al., 2019).

Nevertheless, the opportunity to foster entrepreneurial interest in children is wide open, especially with technological advances and changes in educational orientation (Wu et al., 2022). The digital era provides various platforms and resources that can be used to introduce entrepreneurial concepts in an interesting and interactive way, such as through business simulations, educational games, and technology-based projects. On the other hand, education policies that have begun to emphasize on strengthening character and life skills

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provide space for the integration of entrepreneurial education into the elementary school curriculum. With the right strategy and collaboration between schools, families, and communities, entrepreneurial interest in children can be grown naturally and sustainably as part of the formation of an independent and innovative generation (Gao & Lu, 2024).

Entrepreneurial skills are the main provisions that are very important in facing the challenges of life in a global era full of uncertainty. These skills include the ability to think creatively, decision-making, risk management, effective communication, and the ability to solve problems innovatively (Adeniyi, 2023). Not only relevant for individuals who aspire to become entrepreneurs, entrepreneurial skills are also a basic competency needed in various professions and life situations. Individuals who possess these skills tend to be more adaptive, proactive, and resilient in the face of rapid social and economic change. For children, the development of entrepreneurial skills from an early age provides a strong foundation in forming independent and confident character (Caliendo et al., 2023; Adeniyi, 2023). They are invited to get to know the process of critical thinking, working in teams, and learning from failures constructively. Furthermore, entrepreneurial skills not only increase children's readiness to face the world of work in the future, but also foster a spirit to create opportunities and contribute positively to society (Mustafa Baba, 2014). Therefore, entrepreneurship learning should not only be focused on business aspects, but also directed at developing attitudes, values, and abilities that support the growth of a strong and ethical entrepreneurial spirit.

Self-efficacy is one of the psychological factors that has been proven to play an important role in determining an individual's interest and tendency to engage in entrepreneurial activities. This concept refers to an individual's belief in his or her ability to complete tasks or achieve certain goals, including in facing the challenges and risks inherent in the world of entrepreneurship (Parman et al., 2024). In children, a high level of self-efficacy can encourage the courage to try new things, take initiative, and maintain motivation in the face of failure. In the context of entrepreneurship education, self-efficacy serves as a predictor of success because children who are confident in their abilities are more likely to develop interest, curiosity, and commitment to entrepreneurial activities. Thus, strengthening self-efficacy is a crucial aspect in efforts to foster and foster entrepreneurial interest from an early age (Bandura et al., 2001; Pfeifer et al., 2016).

Research by Hidayat (2021) shows that strengthening entrepreneurial skills through project-based learning significantly increases children's interest in designing and running simple business ideas. A similar thing was also found by Nugroho and Putri (2022), who concluded that the existence of interactive game-based entrepreneurship training can increase children's enthusiasm and interest in the business world. These findings indicate that practical skills instilled early on can strengthen children's interest and propensity to explore entrepreneurial activities. Research conducted by Sari and Wibowo (2020) states that children with high levels of self-efficacy tend to show a more optimistic attitude, be confident, and have greater courage in facing business risks. Self-efficacy is also known to be an important mediator between learning experiences and children's interest in the world of entrepreneurship. Several meta-analytic studies at the adolescent and adult levels, such as those conducted by Zhao et al. (2005), also confirm that self-efficacy is a strong predictor of entrepreneurial intention. However, among children, these findings are still widespread and have not been systematically studied. Therefore, meta-analysis research is needed that can synthesize existing empirical results to provide a more comprehensive picture of the influence of entrepreneurial skills and self-efficacy on entrepreneurial interest in children. By This research aims to influence entrepreneurial skills and self-efficacy on entrepreneurial interest in children.

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Methodology

This study uses a meta-analysis approach to determine the influence of entrepreneurial skills and self-efficacy on entrepreneurial interest in children. Meta-analysis is a research approach that evaluates previous research statistically to reach a conclusion (Tamur et al., 2020. The meta-analysis research procedure is 1) determining the research inclusion criteria, 2) collecting data and coding, 3) analyzing the data statistically.

In the process of searching for data through the Google Scholar, ScienceDirect, Wiley, ERIC, ProQuest, Fronteins and Web of Science databases, the research must meet several inclusion criteria, namely research published in national and international journals indexed by Sinta atu Scopus; research must be relevant; research must be experimental or quasi-experimental methods; The research was published in 2020-2025 and has complete data to calculate the effect size value. From the data search, 20 studies were obtained that met the inclusion criteria published in 2022-2025 which can be seen in Table 2.

To obtain valid research data related to influence of entrepreneurial skills and self-efficacy on entrepreneurial interest in children collected from google scholar database; Mendeley, Scopus; ERIC and Wiley. The keywords for data search ar entrepreneurship skill; self-efficacy; the influence of entrepreneurial skills on entrepreneurial interest in children; The Effect of Self-Efficacy on Entrepreneurial Interest in Children.

Data analysis in this study calculates the effect size value of each study analyzed. The effect size value in this study is to calculate the The Effect of Entrepreneurial Skills and Self-Efficacy on Entrepreneurial Interest in Children. Furthermore, the criteria for the effect size value in the study can be seen in Table 1.

Table 1. Category Effect Size Value

Effect Size	Category
0.0≤ES≤ 0.5	Small
0.5≤ES≤ 0.8	Medium
ES≥ 0.8	Large

Source:(Balemen &Keskin, 2018)

Result and Discussion

Based on the results of data search through the database, 20 studies/articles met the inclusion criteria. The effect size and error standard can be seen in Table 2. Based on Table 2, the effect size value of the 20 studies ranged from 0.29 to 2.09. According to(Balemen &Keskin, 2018) Of the 20 effect sizes, 5 studies had medium criteria effect sizes and 15 studies had high criteria effect size values. Furthermore, 24 studies were analyzed to determine an estimation model to calculate the mean effect size. The analysis of the fixed and random effect model estimation models can be seen in Table 3.

Based on Table 3, a Q value of 79.924 was obtained higher with a coefficient interval of 95% and a p value of 0.001 <. The findings can be concluded that the value of 20 effect sizes analyzed is heterogeneously distributed. Therefore, the model used to calculate the mean effect size is a random effect model. Furthermore, checking publication bias through funnel plot analysis and Rosenthal fail safe N (FSN) test (Tamur et al., 2020; Badawi et al., 2022; Ichsan et al., 2023b; Borenstein et al., 2007). The results of checking publication bias with funnel plot can be seen in Figure 1.

Based on Figure 2, the analysis of the funnel plot is not yet known whether it is symmetrical or asymmetrical, so it is necessary to conduct a Rosenthal Fail Safe N (FSN) test. The results of the Rosenthal Fail Safe N calculation can be seen in Table 4.

Based on Table 4, the Fail Safe N value of 2103 is greater than the value of 5k + 10 = 5(20) + 10 = 110, so it can be concluded that the analysis of 20 effect sizes in this data is not biased by publication and can be scientifically accounted for. Next, calculate the p-value to test the

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hypothesis through the random effect model. The results of the summary effect model analysis with the random effect model can be seen in Table 5.

Table 2. Effect Size and Standard Error in Every Research

Code Journal	Years	Effect Size	Standard Error	Index
RS1	2025	0.88	0.20	Scopus
RS2	2025	1.02	0.33	Sinta
RS3	2022	1.78	0.35	Sinta
RS4	2021	0.47	0.19	Scopus
RS5	2024	0.72	0.23	Scopus
RS6	2024	1.19	0.30	Sinta/Scopus
RS7	2025	0.44	0.13	Sinta
RS8	2025	0.90	0.34	Sinta
RS9	2020	1.03	0.31	Scopus
RS10	2020	0.83	0.30	Scopus
RS11	2021	1.28	0.39	Sinta
RS12	2022	0.82	0.40	Sinta
RS13	2025	1.80	0.31	Sinta
RS14	2024	0.29	0.10	Scopus
RS15	2020	0.52	0.22	Scopus
RS16	2021	0.65	0.18	Sinta
RS17	2023	0.84	0.29	Scopus
RS18	2021	1.02	0.41	Sinta
RS19	2024	0.93	0.24	Sinta
RS20	2023	2.09	0.28	Sinta

Table 3. Residual Heterogeneity Test

Q_e	df	p
79.924	19	< 0.001
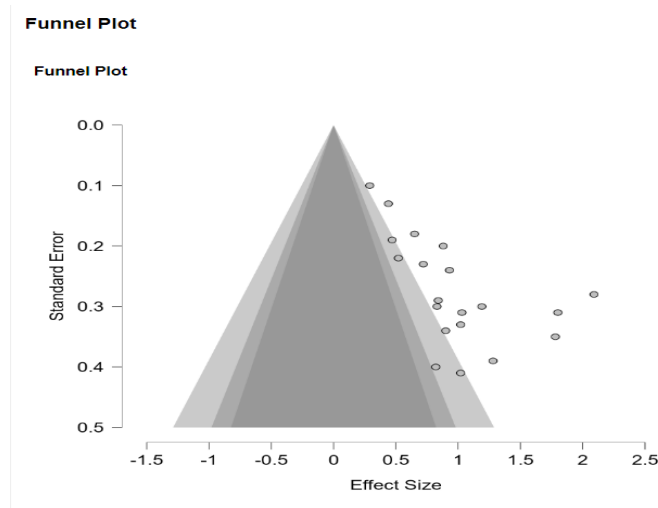
Figure 1. Funnel Plot

Tabel 4. Fail Safe N

File Drawer Analysis			
	Fail Safe N	Target Significance	Observed Significance
Rosenthal	2103	0.050	< 0.001

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Table 5. Pooled Effect Size Test

Estimates	Standard Error	t	df	p
0.927	0.106	8.718	19	< 0.001

Table 5. Explained that the effect size (r) value is 0.927 with a standard error of 0.106. This finding explains that there is a positive influence of Entrepreneurial Skills and Self-Efficacy on Entrepreneurial Interest in Children with a value of t = 8,718; p< 0.001 large effect size category. These findings are consistent with various previous studies that confirm that basic skills such as creativity, problem-solving, and confidence in making decisions are important foundations in building children's interest in the business world (Parman et al., 2024). The combined effect of these two variables shows a considerable positive contribution to the formation of entrepreneurial orientation from an early age, which indicates the importance of strengthening these two aspects in children's education. This shows that the higher the child's entrepreneurial skills and self-efficacy, the more likely they are to be interested in the world of entrepreneurship (Himawan & Aima, 2021; Boyd & Vozikis, 2014).

This meta-analysis provides a higher level of generalization because it involves a wide range of samples from diverse backgrounds and regions. Some previous studies have only highlighted one variable separately, while this study emphasizes the importance of the synergistic relationship between skills and self-efficacy (Himawan & Aima, 2021). For example, research by (Rachmawan et al., 2015) on self-efficacy in education shows that an individual's belief in his or her abilities greatly influences children's active participation in risky activities, including entrepreneurship. Therefore, this comprehensive analysis strengthens the understanding that the development of children's entrepreneurial interests should be carried out holistically (Adriani, 2018). Self-efficacy or an individual's belief in their own abilities has been proven to be a strong predictor for the emergence of entrepreneurial interest in children. Children with high levels of self-efficacy feel more confident to try new things and do not give up easily when faced with challenges in the learning process and entrepreneurial practices. Self-efficacy also mediates the relationship between knowledge/skills and actual behavior in the context of entrepreneurship (Azizah & Pahlevi, 2021; Oktarina et al., 2018; Dewanto et al., 2023; Uluk et al., 2024; Rahman et al., 2023)

These findings support Bandura's social cognitive theory and Becker's theory of human capital, which emphasize that ability and confidence can be transformed into productive economic interests and behaviors (Himawan & Aima, 2021). Entrepreneurial interest as a psychological construct is proven to be not only influenced by environmental factors, but also greatly influenced by children's internal cognitive and affective capital. In this context, strengthening entrepreneurial skills from an early age not only equips children with technical knowledge, but also develops psychological aspects that encourage courage to innovate and take initiative(Rachmawan et al., 2015;Chandranegara & Cahyawati, 2023) . Entrepreneurship project-based learning, business simulation games, and creative thinking training need to be incorporated into the curriculum of elementary school-age children to foster skills and self-efficacy at the same time. In addition, teacher training programs in developing character-based entrepreneurship education are also important to improve the quality of teaching relevant to the needs of the 21st century (Zulkifli et al., 2022). This study emphasizes the importance of educational interventions based on the development of entrepreneurial skills and increasing self-efficacy from an early age to foster interest in entrepreneurship among the younger generation (Caliendo et al., 2023). The practical implications of this result are the need to integrate entrepreneurship training programs into the basic education curriculum and the provision of psychological support so that each child can recognize his or her potential as a future entrepreneur (Zhu & Zhou, 2022; Prabhu et al., 2012; Luciana et al., 2024; Bachtiar et al., 2023).

Conclusion

The results of the study concluded that there was a positive influence of Entrepreneurial Skills and Self-Efficacy on Entrepreneurial Interest in Children with a high value ($r = 0.927$; $t = 8.718$; $p < 0.001$) in the high effect size category. These findings provide important information for teachers to improve children's entrepreneurial skills in schools. These findings confirm that investment in the development of children's competencies and self-confidence is essential to grow a young generation that is innovative, independent, and ready to face future economic challenges. The practical implications of this study are the need to integrate entrepreneurial skills training programs and increase self-efficacy into the basic education curriculum and extracurricular activities. Educational institutions, parents, and policymakers are expected to work together to create a learning environment that supports the exploration of children's entrepreneurial potential through active learning methods, experiential learning, and adequate psychological support. Thus, this systematic effort is believed to be able to increase entrepreneurial interest while strengthening the foundation of entrepreneurial character in the nation's next generation. The limitation of this study lies in the relatively narrow scope of the sample, which only involves children from certain regions so that the findings cannot be generalized widely to the population of children in other areas with different social, cultural, and economic backgrounds. In addition, the quantitative approach used was not fully able to delve deeply into the psychological and social factors that influence entrepreneurial interest, such as family influence, school environment, and personal experience. The instruments used also have limitations in capturing the dynamics of entrepreneurial skill development and self-efficacy which are complex and contextual in children's age.

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References

Adeniyi, A. O. (2023). The mediating effects of entrepreneurial self-efficacy in the relationship between entrepreneurship education and start-up readiness. *Humanities and Social Sciences Communications*, *10*(1), 1–14. https://doi.org/10.1057/s41599-023-02296-4

Adriani, N. (2018). Electronic copy available at : Electronic copy available at : *Grou*, *23529*(2), 1–45.

Ali, M., Nurhayati, R., Wantu, H. M., Amri, M., & Santosa, T. A. (2024). The Effectiveness of Jigsaw Model Based on Flipped Classroom to Improve Students ’ Critical Thinking Ability in Islamic Religious Education Learning. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, *8*(5), 1069–1078. https://doi.org/10.31004/obsesi.v8i5.6190

Ami, Y., Winarno, A., & Wardana, L. W. (2025). *The Effect of Entrepreneurship Education and Self-Efficacy with Mediation of Family Support on Entrepreneurial Interest (Study on Vocational Students of Computer and Network Engineering Expertise Program , and Office Management Automation in Gresik Regen*. *4*(1), 175–190.

Atitsogbe, K. A., Mama, N. P., Sovet, L., Pari, P., & Rossier, J. (2019). Perceived employability and entrepreneurial intentions across university students and job seekers in Togo: The effect of career adaptability and self-efficacy. *Frontiers in Psychology*, *10*(FEB), 1–14. https://doi.org/10.3389/fpsyg.2019.00180

Azizah, R. K., & Pahlevi, T. (2021). Jurnal PAJAR (Pendidikan dan Pengajaran) Volume 5 Nomor 5 September 2021 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337 DOI : http://dx.doi.org/10.33578/pjr.v5i5.8417 THE EFFECT OF ENTREPRENEURSHIP EDUCATION AND FAMILY ENVIRONMENT ON ENTREPRENEU. *Jurnal PAJAR (Pendidikan Dan Pengajaran)*, *5*(5), 1188–1201.

Badawi et al. (2023). Integration of Blended Learning and Project-Based Learning (BPjBL) on Achievement of Students’ learning goals: A Meta-analysis study. *Pegem Journal of*

Education and Instruction, *13*(4). https://doi.org/10.47750/pegegog.13.04.32

Balemen, N., & Özer Keskin, M. (2018). The effectiveness of Project-Based Learning on science education: A meta-analysis search. *International Online Journal of Education and Teaching (IOJET)*, *5*(4), 849–865. http://iojet.org/index.php/IOJET/article/view/452/297

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, *72*(1), 187–206. https://doi.org/10.1111/1467-8624.00273

Bayrón, C. E. (2013). Social Cognitive Theory, Entrepreneurial Self-Efficacy and Entrepreneurial Intentions: Tools to Maximize the Effectiveness of Formal Entrepreneurship Education and Address the Decline in Entrepreneurial Activity. *Revista*, *6*(1), 66–77. http://revistagriot.uprrp.edu/archivos/2013060105.pdf

Borenstein, M., Hedges, L., & Rothstein, H. (2007). *Introduction to Meta-Analysis*. www.Meta-Analysis.com

Boyd, N. G., & Vozikis, G. S. (1994). The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. *Entrepreneurship Theory and Practice*, *18*(4), 63–77. https://doi.org/10.1177/104225879401800404

Brändle, L., Berger, E. S. C., Golla, S., & Kuckertz, A. (2018). I am what I am - How nascent entrepreneurs' social identity affects their entrepreneurial self-efficacy. *Journal of Business Venturing Insights*, *9*(December 2017), 17–23. https://doi.org/10.1016/j.jbvi.2017.12.001

Brändle, L., & Kuckertz, A. (2023). Inequality and Entrepreneurial Agency: How Social Class Origins Affect Entrepreneurial Self-Efficacy. *Business and Society*, *62*(8), 1586–1636. https://doi.org/10.1177/00076503231158603

Burnette, J. L., Pollack, J. M., Forsyth, R. B., Hoyt, C. L., Babij, A. D., Thomas, F. N., & Coy, A. E. (2020). A Growth Mindset Intervention: Enhancing Students' Entrepreneurial Self-Efficacy and Career Development. *Entrepreneurship: Theory and Practice*, *44*(5), 878–908. https://doi.org/10.1177/1042258719864293

Caliendo, M., Kritikos, A. S., Rodríguez, D., & Stier, C. (2023). Self-efficacy and entrepreneurial performance of start-ups. *Small Business Economics*, *61*(3), 1027–1051. https://doi.org/10.1007/s11187-022-00728-0

Chandranegara, I. S., & Cahyawati, D. P. (2023). Conflict of interest prevention clause in the constitution: The study of the Indonesian Constitution. *Heliyon*, *9*(3), e14679. https://doi.org/10.1016/j.heliyon.2023.e14679

Dewanto, D., Wantu, H. M., Dwihapsari, Y., Santosa, T. A., & Agustina, I. (2023). Effectiveness of The Internet of Things (IoT)-Based Jigsaw Learning Model on Students' Creative Thinking Skills: A- Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, *9*(10), 912–920. https://doi.org/10.29303/jppipa.v9i10.4964

Gao, Y., & Lu, J. (2024). Entrepreneurship education and self-efficacy among Chinese college students mediated by harmonious passion and moderated by parental psychological control. *Scientific Reports*, *14*(1), 1–13. https://doi.org/10.1038/s41598-024-83426-z

Hariyadi, S., Santosa, T. A., & Sakti, B. P. (2023). Effectiveness of STEM-Based Mind Mapping Learning Model to Improve Students ' Science Literacy in the Era of Revolution. *Jurnal Penelitian Pendidikan IPA*, *9*(10), 791–799. https://doi.org/10.29303/jppipa.v9i10.5125

Hasdiansa, I. W., & Sitti Hasbiah. (2024). Entrepreneurial Interest is Reviewed from Entrepreneurship Education, Family Environment, and Technopreneurship Literacy with Self-Efficacy as an Intervening variable. *Pinisi Journal of Entrepreneurship Review*, *2*(1), 63–76. https://doi.org/10.62794/pjer.v2i1.2474

Hidi, S., Berndorff, D., & Ainley, M. (2002). Children's argument writing, interest and self-efficacy: An intervention study. *Learning and Instruction*, *12*(4), 429–446. https://doi.org/10.1016/S0959-4752(01)00009-3

Himawan, S., & Aima, M. H. (2021). the Role of Self-Efficacy in Mediating the Effect of Need for Achievement, Family Environment on Entrepreneurial Intention in Management

Students At Mercu Buana University. *Dinasti International Journal of Digital Business Management*, *3*(1), 99–114. https://doi.org/10.31933/dijdbm.v3i1.1079

Ichsan, I., Suharyat, Y., Santosa, T. A., & Satria, E. (2023). Effectiveness of STEM-Based Learning in Teaching 21 st Century Skills in Generation Z Student in Science Learning: A Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, *9*(1), 150–166. https://doi.org/10.29303/jppipa.v9i1.2517

Isabel, A. (2014). Journal of Work and Organizational Psychology. *Journal of Work and Organizational Psychology*, *30*(2), 75–81.

Kickul, J., Wilson, F., Marlino, D., & Barbosa, S. D. (2008). Are misalignments of perceptions and self-efficacy causing gender gaps in entrepreneurial intentions among our nation's teens? *Journal of Small Business and Enterprise Development*, *15*(2), 321–335. https://doi.org/10.1108/14626000810871709

Luciana, O., Sjoraida, D. F., Santosa, T. A., Nugraha, A. R., & Zain, A. (2024). The Effect of Technology-Based Management Learning on Children ' s Organizational Skills Development : A Meta-Analysis Approach. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *8*(6), 1777–1786. https://doi.org/10.31004/obsesi.v8i6.6593

Markman, G. D., Baron, R. A., & Balkin, D. B. (2005). Are perseverance and self-efficacy costless? Assessing entrepreneurs' regretful thinking. *Journal of Organizational Behavior*, *26*(1), 1–19. https://doi.org/10.1002/job.305

Munawar, A., & Suryana. (2020). The Influence of Entrepreneurial Learning and the Motivation to the Entrepreneurial Interest of Students With Self Efficacy as Variable Intervening. *Jurnal Masyrakat Mandiri*, *4*(3), 424–435. http://journal.ummat.ac.id/index.php/jmm

Mustafa Baba. (2014). *Relationship Between Entrepreneurial Orientation , Entrepreneurial Education , Self-Efficacy and Entrepreneurial Intention Among Undergraduate Students At Nigerian Universities Master of Science*. http://etd.uum.edu.my/4663/2/s814246_abstract.pdf

Oktarina, K., Lufri, L., & Chatri, M. (2018). Validity of Learning Module Natural Sciences Oriented Constructivism with the Contain of Character Education for Students of Class VIII at Yunior Hight School. *IOP Conference Series: Materials Science and Engineering*, *335*(1), 0–10. https://doi.org/10.1088/1757-899X/335/1/012091

Parman, P., Nirwana Sampara, & Muh.Fitra. (2024). Strategi Pemasaran Pada Produk Sarung Tenun Di Desa Lero Kecamatan Suppa Kabupaten Pinrang. *DECISION : Jurnal Ekonomi Dan Bisnis*, *5*(1), 22–29. https://doi.org/10.31850/decision.v5i1.2942

Pertiwi, U. R., & Khafid, M. (2021). The Effect of Entrepreneurship Education, Personality, and the Role of Parents Through Self Efficacy on Interest in Entrepreneurship. *Economic Education Analysis Journal*, *10*(3), 416–431. https://doi.org/10.15294/eeaj.v10i3.50479

Pfeifer, S., Šarlija, N., & Zekić Sušac, M. (2016). Shaping the Entrepreneurial Mindset: Entrepreneurial Intentions of Business Students in Croatia. *Journal of Small Business Management*, *54*(1), 102–117. https://doi.org/10.1111/jsbm.12133

Prabhu, V. P., McGuire, S. J., Drost, E. A., & Kwong, K. K. (2012). Proactive personality and entrepreneurial intent: Is entrepreneurial self-efficacy a mediator or moderator? *International Journal of Entrepreneurial Behaviour and Research*, *18*(5), 559–586. https://doi.org/10.1108/13552551211253937

Puni, A., Anlesinya, A., & Korsorku, P. D. A. (2018). Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa. *African Journal of Economic and Management Studies*, *9*(4), 492–511. https://doi.org/10.1108/AJEMS-09-2017-0211

Rachmawan, A., Lizar, A. A., & Mangundjaya, W. L. . (2015). The role of parent's influence and self-efficacy on entrepreneurial intention. *The Journal of Developing Areas*, *49*(3), 417–430. https://doi.org/10.1353/jda.2015.0157

Rahman, A. A., Santosa, T. A., Nurtamam, M. E., Widoyo, H., & Rahman, A. (2023). Meta-Analysis: The Effect of Ethnoscience-Based Project Based Learning Model on Students' Critical Thinking Skills. *Jurnal Penelitian Pendidikan IPA*, *9*(9), 611–620.

https://doi.org/10.29303/jppipa.v9i9.4871

Renaningtyas, D. L., Wahyudin, A., & Khafid, M. (2021). The Effect of Entrepreneurial Knowledge, Industrial Work Practices (Internship), and Family Environment on Entrepreneurial Readiness Through Self-Efficacy. *Jee (Journal of Economic Education)*, *10*(2), 173–184. http://journal.unnes.ac.id/sju/index.php/jeec

Rodrigues, P., Stewart, D., & Snyder, J. (n.d.). *The Influence of Self-efficacy on Entrepreneurial Behavior Among K-12 Teachers ROQUE DO CARMO AMORIM NETO a* The influence of self-efficacy on entrepreneurial behavior among K-12 teachers The Influence of Self-efficacy on Entrepreneurial Behavior Among K-*. 1–41.

Santosa, T. A., Ali, M., Safar, M., Amri, M., Ruchiat, A., & Sjoraida, D. F. (2025). Inquiry-Based Learning and Critical Thinking Skills of Higher Education Students in the Era of Revolution 5 . 0 : A Meta-analysis. *CUESTIONES DE FISIOTERAPIA*, *54*(3), 5156–5166.

Saoula, O., Shamim, A., Ahmad, M. J., & Abid, M. F. (2023). Do entrepreneurial self-efficacy, entrepreneurial motivation, and family support enhance entrepreneurial intention? The mediating role of entrepreneurial education. *Asia Pacific Journal of Innovation and Entrepreneurship*, *17*(1), 20–45. https://doi.org/10.1108/apjie-06-2022-0055

Setiawan, R., Hamdani, N. A., Solihat, A., Mubarok, T. M. S., Nugraha, S., Maulani, G. A. F., & Permana, I. (2020). Does entrepreneurial knowledge affect self-efficacy and impact on entrepreneurial interest? *International Journal of Innovation, Creativity and Change*, *11*(12), 563–582.

Sindala, R., & Asnah, M. B. (2022). The Contribution of Entrepreneurial Knowledge and Self-Confidence to Youth Entrepreneurial Interests at the Orphanage and Its Implications Counseling Services. *International Journal of Applied Counseling and Social Sciences*, *3*(2), 31–38. https://doi.org/10.24036/005507ijaccs

Siregar, Z. A., & Marwan. (2020). *The Influence of Family Environment, Entrepreneurship Knowledge and Entrepreneurship Motivation on Students' Entrepreneurship Interest of Islamic Education Management Program of Universitas Islam Negeri Sumatera Utara*. *124*(December 2018), 566–574. https://doi.org/10.2991/aebmr.k.200305.120

Sugianingrat, I. A. P. W., Wilyadewi, I. I. D. A. Y., & Sarmawa, I. W. G. (2020). Determination of Entrepreneurship Education, Family Environment, and Self-Efficacy on Entrepreneurship Interest. *Jurnal Economia*, *16*(1), 33–43. https://doi.org/10.21831/economia.v16i1.30374

Tamur, M., Juandi, D., & Kusumah, Y. S. (2020). The effectiveness of the application of mathematical software in indonesia; a meta-analysis study. *International Journal of Instruction*, *13*(4), 867–884. https://doi.org/10.29333/iji.2020.13453a

Uluk, E., Masruchiyah, N., Nurhayati, R., Agustina, I., Sari, W. D., Santosa, T. A., Widya, U., Klaten, D., & Yogyakarta, U. N. (2024). Effectiveness of Blended Learning Model Assisted By Schoology to Improve Language Skills of Early Childhood Education Teachers. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *8*(6), 1363–1374. https://doi.org/10.31004/obsesi.v8i6.6226

Wu, L., Jiang, S., Wang, X., Yu, L., Wang, Y., & Pan, H. (2022). Entrepreneurship Education and Entrepreneurial Intentions of College Students: The Mediating Role of Entrepreneurial Self-Efficacy and the Moderating Role of Entrepreneurial Competition Experience. *Frontiers in Psychology*, *12*(January). https://doi.org/10.3389/fpsyg.2021.727826

Youna Chatrine Bachtiar, Mohammad Edy Nurtamam, Tomi Apra Santosa, Unan Yasmaniar Oktiawati, & Abdul Rahman. (2023). the Effect of Problem Based Learning Model Based on React Approach on Students' 21St Century Skills: Meta-Analysis. *International Journal of Educational Review, Law And Social Sciences (IJERLAS)*, *3*(5), 1576–1589. https://doi.org/10.54443/ijerlas.v3i5.1047

Zhu, F., & Zhou, H. (2022). Perceived Parental Care and Next-Generation Family Members' Succession Intentions: The Sequential-Mediating Role of General Self-Efficacy and

DOI: 10.31004/obsesi.v9i4.6989
Perceived Person-Job Fit. *Management and Organization Review*, *18*(2), 319–357. https://doi.org/10.1017/mor.2021.52

Zulkifli, Z., Satria, E., Supriyadi, A., & Santosa, T. A. (2022). Meta-analysis: The effectiveness of the integrated STEM technology pedagogical content knowledge learning model on the 21st century skills of high school students in the science department. *Psychology, Evaluation, and Technology in Educational Research*, *5*(1), 32–42. https://doi.org/10.33292/petier.v5i1.144

Zulyusri, Z., Santosa, T. A., Festiyed, F., Yerimadesi, Y., Yohandri, Y., Razak, A., & Sofianora, A. (2023). Effectiveness of STEM Learning Based on Design Thinking in Improving Critical Thinking Skills in Science Learning: A Meta-Analysis. *Jurnal Penelitian Pendidikan IPA*, *9*(6), 112–119. https://doi.org/10.29303/jppipa.v9i6.3709